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## Special Wrench for B-Nuts Reduces Torque Stress in Tubing



Figure 1. Unassembled Components

A novel gear-driven torque wrench with bearing support can be used to tighten the B-nut connection of a partially supported fluid line, with minimum stress to the adjacent tubing and fittings.

The new wrench has a unique, manually clamped, split-half socket assembly and drive, with split special gears and bearings. The guide bearing, gear and socket assembly is retained using the Thandled socket to actuate the split collar (Fig. 1). When the wrench is around the nut, the torque drive is operated by the larger handle (Fig. 2).

The wrench may be useful for working with weak or brittle lines such as glass tubing.

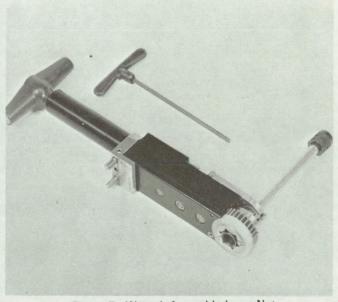


Figure 2. Wrench Assembled on a Nut

## Note:

Requests for further information may be directed to:

Technology Utilization Officer Manned Spacecraft Center, Code BM7 Houston, Texas 77058 Reference: TSP70-10550

## Patent status:

No patent action is contemplated by NASA.

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